

FORM PTO-1449
U.S. DEPARTMENT OF COMMERCE
PATENT & TRADEMARK OFFICE

DEC 16 2002

ATTY DOCKET NO.
ALLIA.62FIC1C1

APPLICATION NO.
09/991,445

INFORMATION DISCLOSURE STATEMENT BY
APPLICANT
(USE SEVERAL SHEETS IF NECESSARY)

APPLICANT
Schutt et al.

FILING DATE
November 16, 2001

GROUP
1619

SHEET 1 OF 6
RECEIVED
DEC 18 2002
TECH CENTER 1600/2900

EXAMINER INITIAL	D N	O U	C M	U B	M E	E R	N	T	DATE	U.S. PATENT DOCUMENTS NAME	CLASS	SUBCLASS	FILING DATE
	4	2	7	6	8	8	5		7/7/1981	Tickner et al.	128	660	
	4	4	6	6	4	4	2		8/21/1984	Hilman et al.	128	653	
	4	6	1	3	3	2	6		9/23/1986	Szwarc	604	89	
	4	6	8	4	4	7	9		8/4/1987	D'Arrigo	252	307	
	4	7	1	8	4	3	3		1/12/1988	Feinstein	128	660	
	4	7	7	4	9	5	8		10/4/1988	Feinstein	128	660.01	
	4	8	3	2	9	4	1		5/23/1989	Berwing et al.	424	9	
	4	8	4	4	8	8	2		7/4/1989	Widder et al.	424	9	
	4	8	9	8	7	3	4		2/6/1990	Mathiowitz et al.	424	426	
	4	9	2	7	6	2	3		5/22/1990	Long, Jr.	424	5	

EXAMINER INITIAL	D N	O U	C M	U B	M E	E R	N	T	DATE	FOREIGN PATENT DOCUMENTS COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	5	9	6	7	2	2	9		4/1984	Japan			
	0	2	3	0	0	9	1		9/1987	Europe			
	0	2	7	9	3	7	9		8/1988	Europe			
	0	3	5	7	1	6	4		3/1990	Europe (in German with Summary in English)			
	0	3	5	9	2	4	6		3/1990	Europe			
	9	1	0	9	6	2	9		7/1991	PCT			

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
	1 Wesley & Safar, <i>Acoustic Non-Linearity Due to Micro-Bubbles in Water</i> , <i>Acustica</i> , 22: 177-182 (1969-70)
	2 Alliger, <i>Ultrasonic Disruption</i> , Reprinted from <i>American Laboratory</i> , (October 1975)
	3 Carstensen et al., <i>Ultrasound and Medicine in Biology</i> , 6: 159-168 (1980)
	4 Hagen-Ansert, <i>Textbook of Diagnostic Ultrasonography</i> , Second Edition pp 10-12 (1983)
	5 Berliner, III, <i>Application of Ultrasonic Processors</i> , <i>Biotechnology Laboratory</i> , pp 46-52 (March, 1984)
	6 Mattrey, M.D., <i>Abstract, Association of University Radiologists</i> , 35 th Annual Meeting (March 22-27, 1987)
	7 Mattrey, M.D., <i>Perflurochemicals as US Contrast Agents for Tumor Imaging and Hepatosplenography: Preliminary Clinical Results</i> <i>Radiology</i> 163: 339-343 (1987)

EXAMINER

DATE CONSIDERED 10/03

*EXAMINER: INITIAL IF CITATION CONSIDERED. WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609: DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE		ATTY DOCKET NO. ALLIA.62F1C1C1		APPLICATION NO. 09/991,445	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT Schutt et al.			
		FILING DATE November 16, 2001		GROUP 1619	

										U.S. PATENT DOCUMENTS			
EXAMINER INITIAL	D N	O U	C M	U B	M E	E R	N	T	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	4	9	5	7	6	5	6		9/18/1990	Cerny et al.	252	311	
	5	0	8	8	4	9	9		2/18/1992	Unger	128	667.02	
	5	1	2	3	4	1	4		6/23/1992	Unger	128	654	
	5	1	4	1	7	3	8		8/25/1992	Rasor et al.	424	2	
	5	1	4	9	3	1	9		9/22/1992	Unger	604	22	
	5	1	5	5	2	1	5		10/13/1992	Ranney	534	16	
	5	1	9	6	1	8	3		3/23/1993	Yudelson et al.	424	9	
	5	2	0	5	2	8	7		4/27/1993	Erbel et al.	128	632	
	5	2	0	5	2	9	0		4/27/1993	Unger	128	653.4	
	5	2	7	1	9	2	8		12/21/1993	Schneider et al.	424	9	

										FOREIGN PATENT DOCUMENTS			
EXAMINER INITIAL	D N	O U	C M	U B	M E	E R	N	T	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	9	1	1	2	8	2	3		9/1991	PCT			
	9	1	1	5	9	9	9		10/1991	PCT			
	9	2	2	2	2	4	7		12/1992	PCT			
	9	3	0	0	9	3	0		1/1993	PCT			
	9	3	0	1	7	1	2		2/1993	PCT			
	9	3	0	3	6	7	1		3/1993	PCT			

EXAMINER INITIAL		OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)											
	8	Mattrey, M.D., <i>Perfluorooctylbromide: A New Contrast Agent for CT, Sonography, and MR Imaging</i> Manuscript, 1988											
	9	De Jong, et al., <i>Absorption and Scatter of Encapsulated Gas Filled Microspheres: Theoretical Considerations and Some Measurements</i> , <i>Ultrasonics</i> 30 (3): 95-103 (1992)											
	10	Schrope et al., <i>Simulated Capillary Blood Flow Measurement Using a Nonlinear Ultrasonic Contrast Agent</i> , <i>Ultrasonic Imaging</i> 14: 134-158 (1992)											
	11	Liposomes, <i>From Biophysics to Therapeutics</i> Edited by Mark J. Ostro, Marcel Dukker, Inc. New York. pp 2-8, 17-21, 74, and 105.											
	12	Hunter et al., <i>1 Foundation of Colloid Science</i> , Clarendon Press, Oxford pp 20 & 22											
	13	Rae, II, <i>Peripheral Vascular Doppler Examinations</i> , <i>Textbook of Diagnostic Ultrasonography</i> pp 323-325											
	14	De Jong et al., <i>Principles and Recent Developments in Ultrasound Contrast Agents</i> , <i>Ultrasonics</i> , 29: 324-330 (1991)											

EXAMINER	DATE CONSIDERED
	10/03

*EXAMINER: INITIAL IF CITATION CONSIDERED WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609: DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE		ATTY DOCKET NO. ALLIA.62F1C1C1	APPLICATION NO. 09/991,445
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT Schutt et al.	
FILING DATE November 16, 2001		GROUP 1619	

										U.S. PATENT DOCUMENTS			
EXAMINER INITIAL	D N	O U	C M	U B	M E	E R	N	T	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5	3	1	5	9	9	7		5/31/1994	Widder et al.	128	653.3	
	5	3	3	3	6	1	3		8/2/1994	Tickner et al.	128	662.02	
	5	3	3	4	3	8	1		8/2/1994	Unger	424	9	
	5	3	4	8	0	1	6		9/20/1994	Unger et al.	128	662.02	
	5	3	5	2	4	3	5		10/4/1994	Unger	424	9	
	5	3	5	2	4	3	6		10/4/1994	Wheatley et al.	424	9	
	5	1	9	5	5	2	0		5/23/1993	Schlieff, et al.	128	660.01	
	5	5	8	5	1	1	2		12/17/1996	Unger et al.	424	450	
	5	5	3	6	4	8	9		7/16/1996	Lohrmann et al.	424	9.52	
	4	5	7	2	2	0	3		2/25/1986	Feinstein	128	661	

										FOREIGN PATENT DOCUMENTS			
EXAMINER INITIAL	D N	O U	C M	U B	M E	E R	N	T	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	0	5	5	4	2	1	3		8/1993	Europe			
	9	3	2	5	2	4	2		12/1993	PCT (abstract & claims)			
	0	4	5	8	7	4	5		9/1994	Europe			
	9	4	2	1	1	7	5		9/1994	PCT			
	9	0	0	1	9	5	2		3/1990	WO			
	WO	8	9	0	6	9	7	8	8/25/1989	Australia			

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)												
	15	Greer, <i>First Ultrasound Contrast Agent Awaits OK from FDA, Advance for Radiologic Science Professionals</i> pp 3-5 (1993)											
	16	Kitagawa et al., <i>Biological Abstracts</i> 63: 6392 (1977)											
	17	Keough et al. <i>Biological Abstracts</i> 81: 105308 (1986)											
	18	Matsuda et al. <i>Contrast Echocardiography of the Left Heart by Intravenous Injection of Perfluorochemical Emulsion J. of Cardiology</i> 13(4): 1021-1028 (1983)											
	19	Sunamoto et al. <i>Liposomal Membranes J. Biochem.</i> 88: 1219-1226 (1980)											
	20	Mattrey, R.F., M.D. <i>Perfluorooctylbromide: A Liver/Spleen-Specific and Tumor-Imaging Ultrasound Contrast Material Radiology</i> 145(3): 759-762 (1982)											
	21	Goldberg et al., <i>Ultrasound in Med. & Biol.</i> 20: 319-333 (1994)											

EXAMINER	DATE CONSIDERED
	10/03

*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE		ATTY DOCKET NO. ALLIA.62F1C1C1		APPLICATION NO. 09/991,445	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT Schutt et al.			
FILING DATE November 16, 2001		GROUP 1619			

				U.S. PATENT DOCUMENTS								
EXAMINER INITIAL	D N	O U	C M	U B	E R	T	DATE	NAME	CLASS	SUBCLASS	FILING DATE	
	5	4	1	0	5	1	6	4/25/1995	Uhlendorf et al.	367	7	
	4	6	5	8	8	5	6	4/14/1987	Rasor et al.	424	9	
	4	9	0	4	4	7	9	2/27/1990	Illum	424	490	
	4	9	2	5	6	7	8	5/15/1990	Ranney	424	493	
	5	1	0	8	7	5	9	4/28/1992	Ranney	424	493	
	5	1	8	6	9	2	2	2/16/1993	Shell et al.	128	654	
	5	1	9	0	9	8	2	3/2/1993	Erbel et al.	521	56	
	5	3	0	5	7	5	7	4/26/1994	Unger et al.	128	662.02	
	5	3	1	0	5	4	0	5/10/1994	Giddey et al.	424	9	
	5	3	1	5	9	9	8	5/31/1994	Tachibana et al.	128	660.01	
	5	3	7	6	3	8	0	12/27/1994	Kikuchi et al.	424	450	

EXAMINER INITIAL	D N	O U	C M	U B	M E	E R	N	T	DATE	FOREIGN PATENT DOCUMENTS COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	WO	9	2	2	2	2	4	9	12/23/1992	PCT			
	WO	9	4	1	6	7	3	9	8/4/1994	PCT			
	WO	9	5	1	6	4	6	7	6/22/1995	PCT			
	1	2	3	2	3	5		B1	10/31/1984	EPO			
	1	3	1	5	4	0		A2	1/16/1985	EPO (abstract and translation of the claims)			Claims
	2	3	1	0	9	1		A1	8/5/1987	EPO			
	5	8	6	8	7	5		A1	2/1/1989	EPO			No
	3	2	0	4	3	3		A3	6/14/1989	EPO (Abstract and translation of claims)			Claims
	8	9	0	5	1	6	0		6/15/1989	PCT			Abstract

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
	22 Schroepe and Newhouse, <i>Ultrasound in Med. & Biol.</i> 19:567-579 (1993)
	23 Mattrey, <i>Art. Cells, Blood Subs., and Immob. Biotech.</i> 22:295-313 (1994)
	24 Peter N. Burns, <i>Radiologica Medica</i> 87: 71-82 (Suppl. 1 al. n. 5, 1994)

EXAMINER	DATE CONSIDERED
	10/03

*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE		ATTY DOCKET NO. ALLIA.62F1C1C1	APPLICATION NO. 09/991,445
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT Schutt et al.	
FILING DATE November 16, 2001		GROUP 1619	

EXAMINER INITIAL	D	N	O	U	C	M	U	B	M	E	R	N	T	DATE	U.S. PATENT DOCUMENTS NAME	CLASS	SUBCLASS	FILING DATE
	5	3	8	0	5	1	9							1/10/1995	Schneider et al.	424	9	
	5	3	9	3	5	2	4							2/28/1995	Quay	424	9	
	5	4	0	9	6	8	8							4/25/1995	Quay	424	9	
	5	4	1	3	7	7	4							5/5/1995	Schneider et al.	424	9.51	
	5	5	5	6	6	1	0							9/17/1996	Yan et al.	424	9.52	
	5	5	5	8	0	9	4							9/24/1996	Quay	128	662.02	
	5	5	5	8	8	5	3							9/24/1996	Quay	424	9.5	
	5	5	5	8	8	5	4							9/24/1996	Quay	424	9.52	
	5	5	5	8	8	5	5							9/24/96	Quay	424	9.5	
	5	5	5	8	8	5	6							9/24/96	Klaveness et al.	424	9.52	
	5	5	5	8	8	5	7							9/24/96	Klaveness et al.	424	9.37	

EXAMINER INITIAL	D	N	O	U	C	M	U	B	M	E	R	N	T	DATE	FOREIGN PATENT DOCUMENTS COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	3	0	3	5	1	8	9							8/25/1989	Australia			
	9	3	0	0	9	3	0							1/21/1993	PCT			
	9	3	0	2	7	1	2							2/18/1993	PCT			
	9	3	0	5	8	1	9							4/1/1993	PCT			
	9	3	0	6	8	6	9							4/15/1993	PCT			
	9	4	0	1	1	4	0							1/20/1994	PCT (Abstract and translation of claims)			Claims
	9	4	0	6	4	7	7							3/31/1994	PCT			
	9	4	0	8	7	0	7							4/28/1994	PCT			
	9	4	0	9	7	0	3							5/11/94	PCT			Claims
	9	4	0	9	8	2	9							5/11/1994	PCT			
	6	0	6	6	1	3		AI						7/20/1994	EPO			
	9	4	1	6	7	3	8							8/4/1994	PCT			

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
25	Burkard et al. <i>Simulation of Exchanges of Multiple Gases in Bubbles in the Body Respiration Physiology</i> 95:131-145 (1994)
26	Burkard et al. <i>Oxygen Transport to Tissue by Persistent Bubbles: Theory and Simulations Modeling in Physiology</i> pp 2874-2878 (1994)

EXAMINER	DATE CONSIDERED
SS/11	10/03

*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE	ATTY DOCKET NO. ALLIA.62F1C1C1	APPLICATION NO. 09/991,445
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (USE SEVERAL SHEETS IF NECESSARY)	APPLICANT Schutt et al.	
	FILING DATE November 16, 2001	GROUP 1619

										U.S. PATENT DOCUMENTS			
EXAMINER INITIAL	D N	O U	C M	U B	M E	E R	N	T	DATE	NAME	CLASS	SUBCLASS	FILING DATE
7	5	4	6	9	8	5	4		11/28/1995	Unger et al.	7	7	
	5	5	4	2	9	3	5		8/6/1996	Unger et al.			
	5	7	0	5	1	8	7		1/6/1998	Unger et al.			
	5	6	3	9	4	4	3		6/17/1997	Schutt et al.			
	5	8	0	4	1	6	2		9/8/1998	Kabalnov et al.			
	6	1	3	9	8	1	9		10/31/2000	Unger et al.			
	6	1	9	3	9	5	2		2/27/2001	Kabalnov et al.			

										FOREIGN PATENT DOCUMENTS			
EXAMINER INITIAL	D N	O U	C M	U B	M E	E R	N	T	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
7	2	0	7	7	3	8	3		9/1992	Canada			
	9	4	2	8	7	9	7		12/1994	PCT			
	9	4	2	8	9	3	9		12/1994	PCT			
	0	6	3	3	0	3	0	A1	7/1994	EPO			
	9	2	1	1	8	7	3		7/1992	WO			
	6	5	2	8	0	3	B		9/1994	Australia			
	9	6	2	8	0	9	0		9/1996	WO			

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)												
7	27	Feinstein et al. <i>Two-Dimensional Contrast Echocardiography. I. In Vitro Development and Quantitative Analysis of Echo Contrast Agents Development and Quantitative Analysis of Echo Contrast Agents</i>											
	28	Long, et al. <i>An Overview of Perfluorocytbromide - Application As A Synthetic Oxygen Carrier And Imaging Agent For X-Ray, Ultrasound And Nuclear Magnetic Resonance Symposium on Blood Substitutes</i> pp 411-420 (1989)											
	29	Wiley et al. <i>Encyclopedia of Chemical Technology</i> pp 856-857 (1980)											
	30	J H Simmons <i>Physical Chemistry of Fluorocarbons Fluorine Chemistry</i> pp 133-229 (1964)											
	31	D.D. Lawson et al. <i>Methods for the Estimation of Vapor Pressures and Oxygen Solubilities of Fluorochemicals for Possible Application in Artificial Blood Formulations</i> (1978)											
	31	Kabalnov et al. <i>Dissolution of Multicomponent Microbubbles in the Bloodstream: I. Theory Ultrasound in Medi. & Biol.</i> :24 739-749 (1998)											

EXAMINER SS/gd	DATE CONSIDERED 10/03
*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.	